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Claims

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1. Process for further processing of small glass particles, for example in the form of scrap glass granulate with a grain size in the range between 0.3 and 4 mm or glass beads with diameters in the range between 01. and 2.3 mm, characterized in that the surfaces of the glass particles are brought into contact with a low melting silicate flux or enamel, for example of lead borosilicate, sodium borosilicate, fluoroborosilicate or mixtures thereof in amounts of 2 to 9% by weight, preferably 3 to 5% by weight, and that as a result the glass particles are exposed to heat treatment in the range between 540 and 800°C, preferably in the range between 560 and 660°C, at which the low melting silicate flux or enamel melts on the surfaces of the glass particles.

2. Process as claimed in claim 1, wherein the surfaces of the glass particles, before making contact with the silicate flux or enamel, are treated beforehand with a wetting agent in the form of an screen printing oil which gasifies without residue, a liquid which contains both boric acid and also fluorine salts and/or mixtures thereof.

3. Process as claimed in claim 1 or 2, wherein the low melting silicate flux or enamel contains color pigments so that subsequent to heat treatment and a possibly necessary separation process, pulverizing or grinding forms small glass particles in the form of glass granulate or glass beads with a color layer fired onto the outside.

4. Process as claimed in claim 3, wherein heat treatment is done selectively in an oxidizing or reducing atmosphere.

5. Process as claimed in one of claims 1 to 4, wherein a layer of a low melting silicate flux or enamel is applied to one or both surfaces of a flat material, wherein consequently a layer of selectively colored or uncolored glass particles is applied to one or both wetted surfaces of the flat carrier material within the framework of a spraying process, and wherein following a completed rolling process heat treatment is done in which the formation of securely adhering connecting bridges between the glass particles among one another and the surface of the flat carrier material occurs.

6. Process as claimed in claim 5, wherein the flat carrier material is selectively thin flat glass or a flexible glass film.

7. Process as claimed in claim 5, wherein the flat carrier material is made in the form of ceramic tiles.

8. Process as claimed in claim 5, wherein the flat carrier material is formed by the extensive metal surfaces of the bodies of land vehicles or the surfaces of ship hulls or aircraft.

9. Process as claimed in claim 5, wherein the flat carrier material is a fireproof fabric preferably in the form of a looped glass fabric or ceramic fabric.

10. Process as claimed in one of claims 1 to 4, wherein the colored or uncolored glass beads are coated with a low melting silicate flux or enamel within a mixing device, whereupon the pasty mass produced in this way is placed in corresponding molds, by which after heat treatment porous glass elements are formed in

the form of flat plates, relief panels, glass blocks, wall panels, cladding panels and the like.

11. Process as claimed in one of claims 1 to 4, wherein the glass particles are coated with a low melting silicate flux or enamel within a mixing device, whereupon the pasty mass produced in this way is placed in a cavity between two flat glass plates or glass films, by which after heat treatment heat insulating glass panes are formed.